



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,642	10/23/2003	Toru Kunimochi	117591	9142
25944	7590	01/11/2005	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			ALAVI, ALI	
			ART UNIT	PAPER NUMBER
			2875	

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/690,642

Applicant(s)

KUNIMUCHI ET AL.

Examiner

Ali Alavi

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/23/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6-8 and 13 is/are rejected.
- 7) ☐ Claim(s) 2-5 and 9-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/06/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,6-8, and13 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamashita et al (US 2004/0246697 A1).

Yamashita discloses a spread illuminating apparatus comprising: at least one spot-like light source (2, fig. 1A), and a light conductive plate (4), which has the at least one spot-like light source disposed close to its light entrance surface (fig. 1A), and which allows light emitted from the at least one spot-like light source and introduced therein through the light entrance surface to exit through its light exit surface toward an object to be illuminated (LCD), wherein the light exit surface is provided with a light scattering means comprising a plurality of mechanisms (43) which are each formed so as to extend in a direction perpendicular to the light entrance surface, are continuously arrayed in a direction parallel to the light entrance surface, and which are adapted to scatter the light emitted from the at least one spot-like light source with respect to the direction parallel to the light entrance surface, and wherein a surface of the light conductive plate opposite to the light exit surface is provided with an optical path

conversion means (44, fig.1A), the mechanisms of the light scattering means have their surfaces roughened with a plurality of grooves each formed so as to extend in the direction perpendicular to the light entrance surface of the light conductive plate (fig. 1A), wherein the mechanisms of the light scattering means each consist of paired slanting surfaces forming a triangular cross section, and have their respective triangular cross sections defining respective apex angles equal to one another, and the slanting surfaces are roughened with a plurality of grooves each formed so as to extend in the direction perpendicular to the light entrance surface of the light conductive plate (fig. 1A), wherein the surfaces roughened have an average surface roughness ranging from 0.1 to 1.0 μm (paragraph 89, line 29).

Allowable Subject Matter

Claims 2-5, and 9-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 2 is objected to because in part recites "...the mechanisms of the light scattering means each consist of paired slanting surfaces forming a triangular cross section, and have their respective triangular cross sections defining respective apex angles different from one another." Claim 9 is objected to because being depended on claim 2.

Claim 3 is objected to because in part recites "...the mechanisms of the light scattering means each consist of a ridge having its surface arced in cross section, and have their respective ridges differing in dimension and defining different maximum

Art Unit: 2875

tangential angles with respect to an imaginary major plane of the light conductive plate.”

Claims 4, 10, and 11 are objected to because being depended on claim 3.

Claim 5 is objected to because in part recites “...the mechanisms of the light scattering means each consist of a ridge multifaceted so as to form a polygonal cross section, and have their respective ridges differing in dimension and in cross sectional configuration.” Claim 12 is objected to because being depended on claim 5.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Parker et al (US Pat. No 6,827,456), Tai (US Pat. No 5,854,872) are cited of interest.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Ali Alavi whose telephone number is (571) 272-2365. The examiner can normally be reached between 7:00 A.M. to 5:30 P.M. Tuesday to Friday. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Sandy O'Shea can be reached at (571) 272-2378 or you may fax your inquiry to the **Central Fax** at (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

Art Unit: 2875

have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Ali Alavi", with a stylized flourish at the end.

Ali Alavi
Examiner
AU 2875